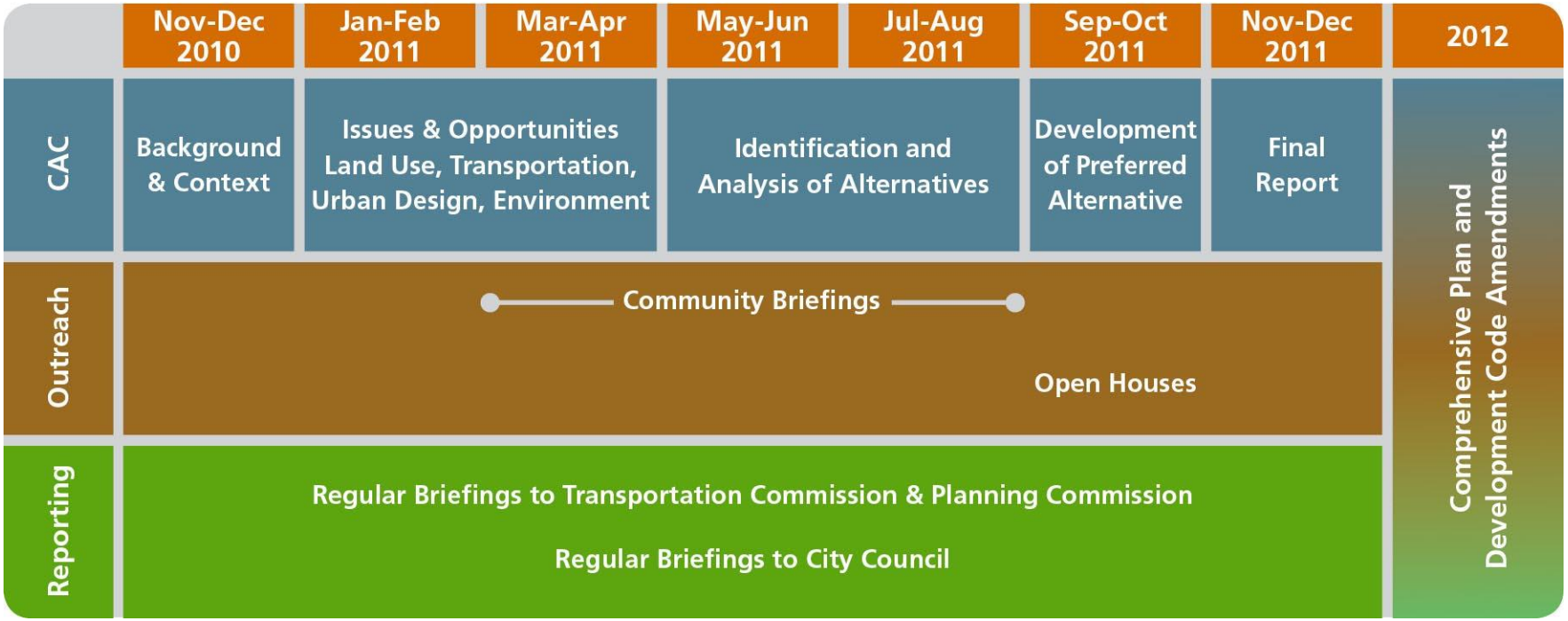
Eastgate/I-90 Land Use & Transportation Project

Transportation Commission

October 13, 2011

November 3 – Draft preferred alternative.

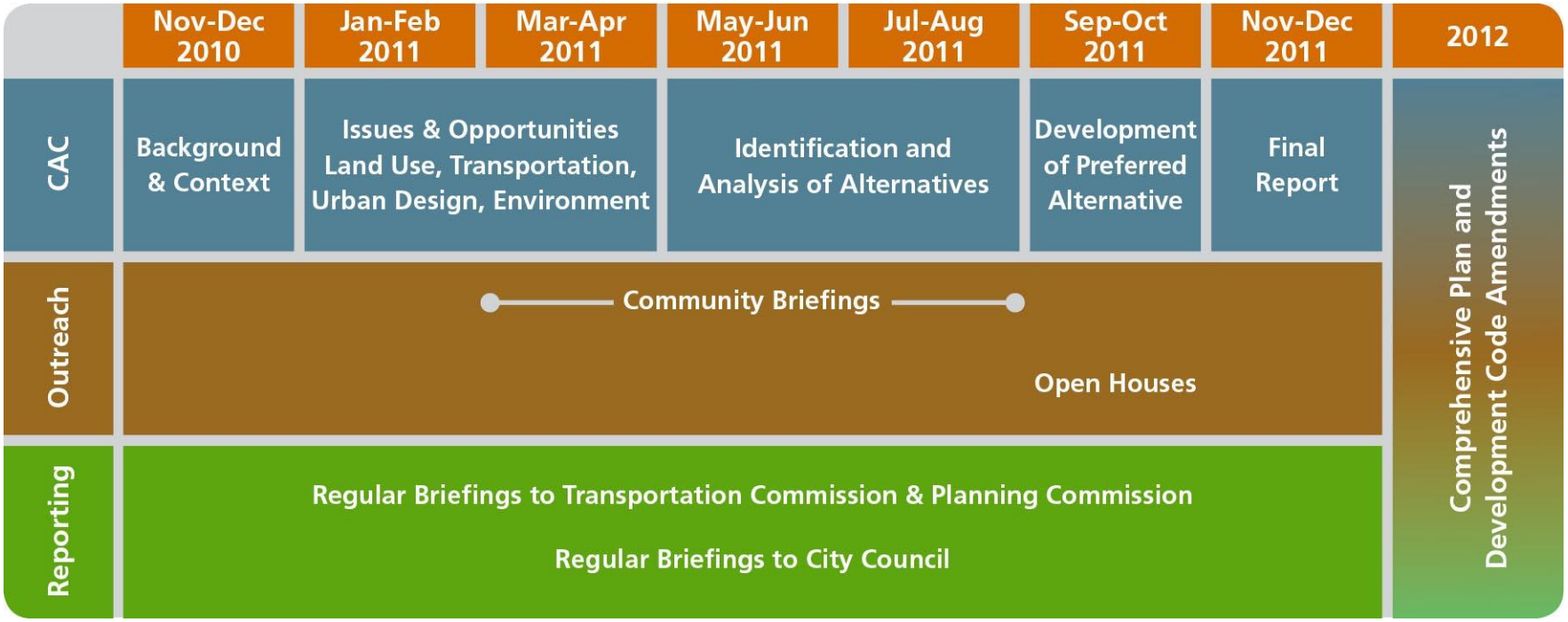


Eastgate/I-90 Land Use & Transportation Project

Launch Internet Explorer Browser.lnk

Project Timeline

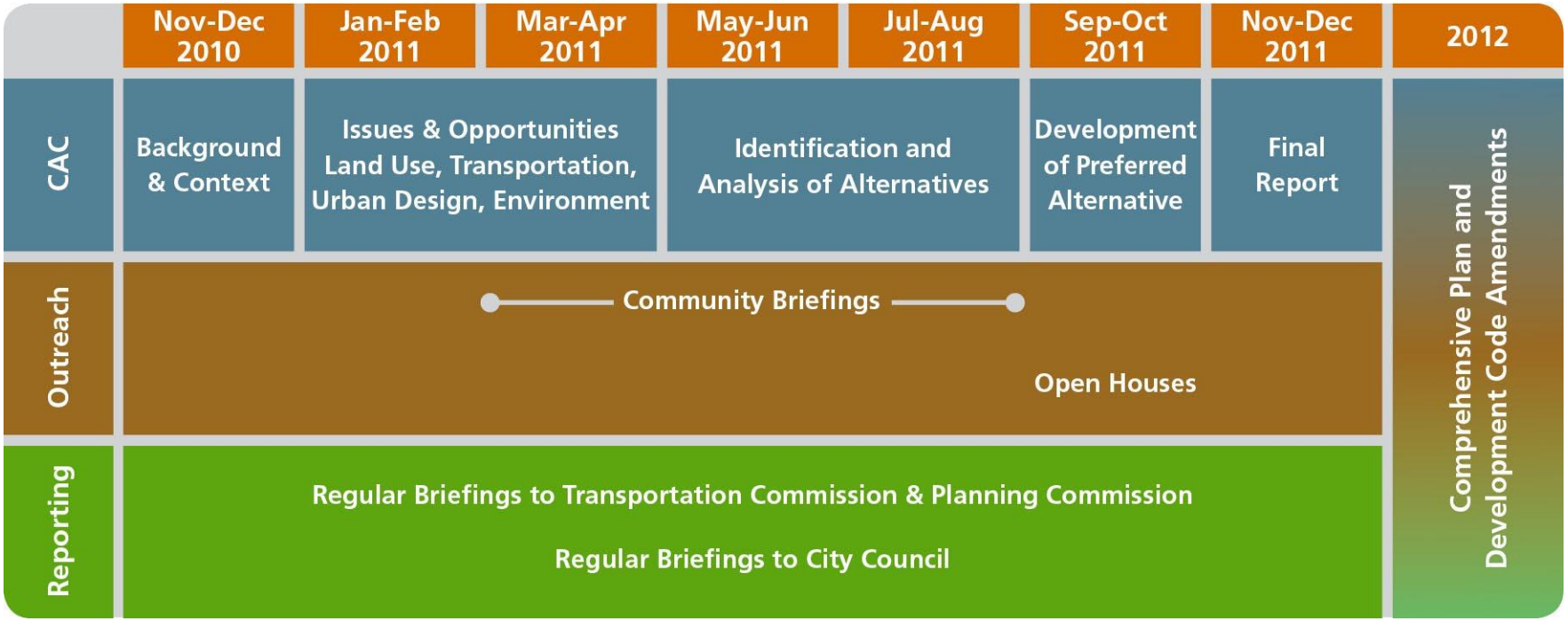
December 1 – Finalize preferred alternative.



Eastgate/I-90 Land Use & Transportation Project

Project Timeline

January 5 – Approve final report and recommendation.



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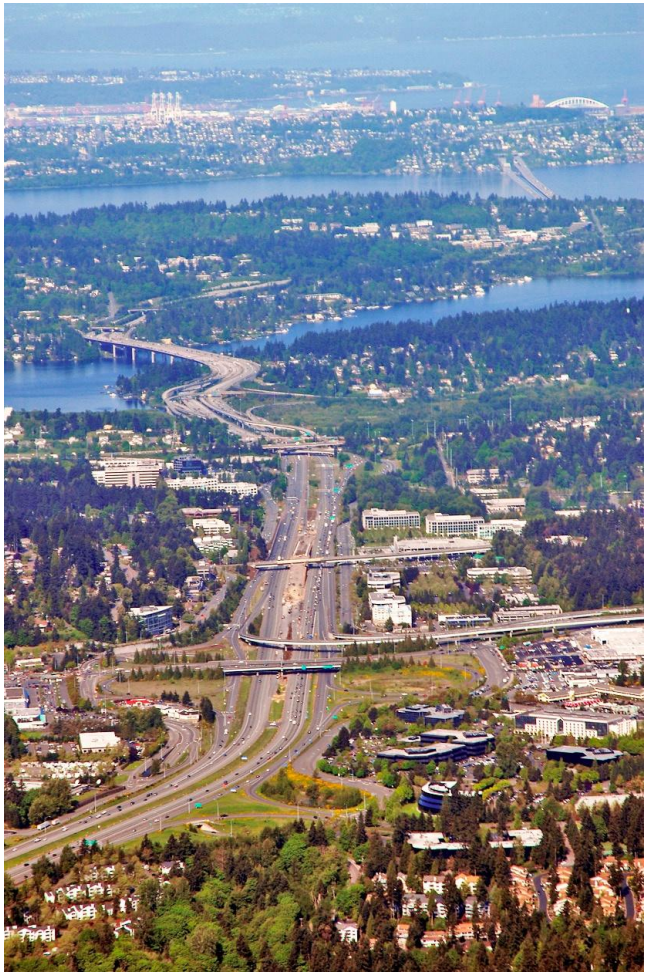
Project Timeline

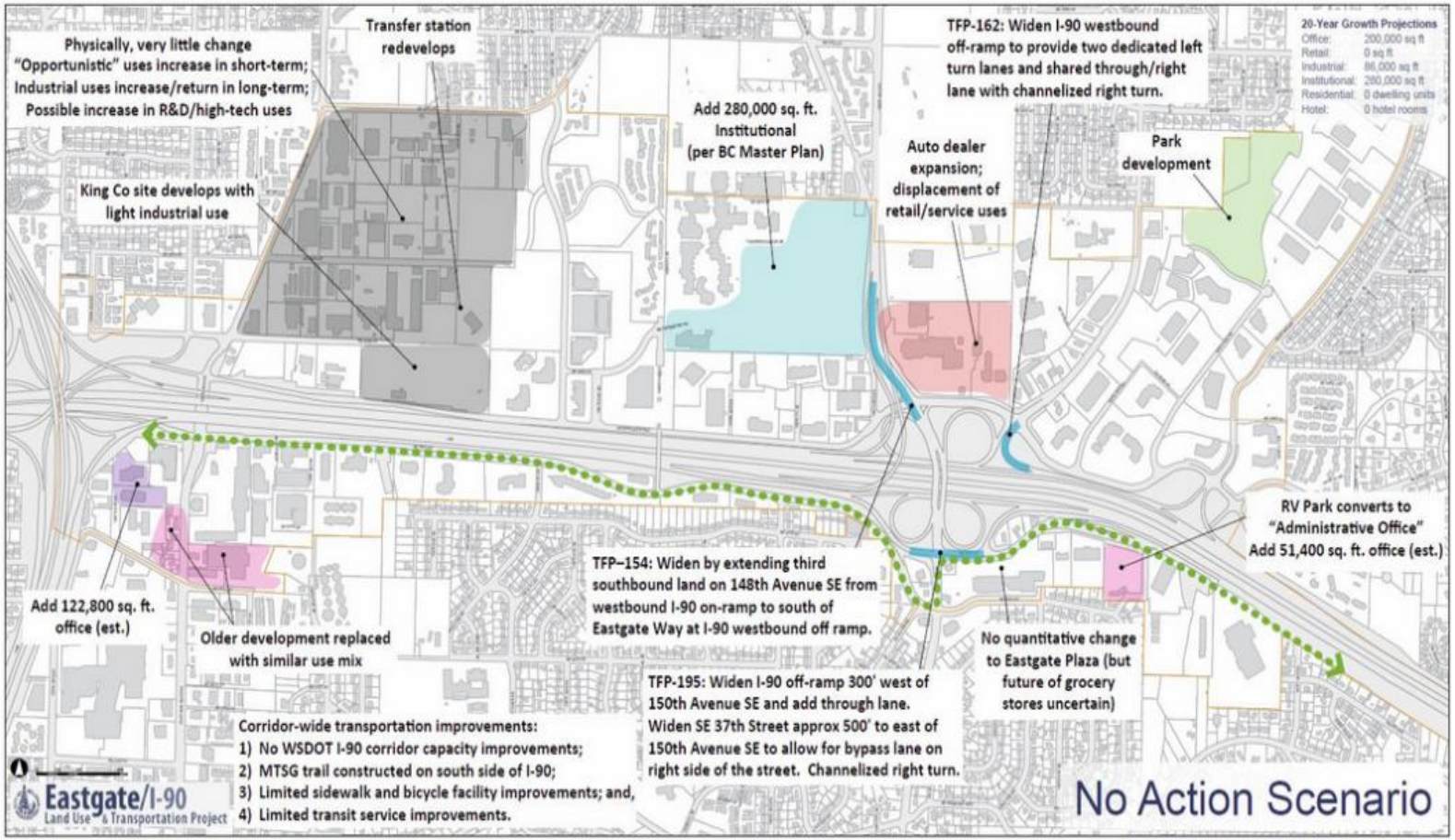


Draft Alternatives

Eastgate/I-90
Land Use & Transportation Project

Land Use Type	Market Study	No Action	Alternative 1	Alternative 2	Alternative 3
Office (square feet)	1,500,000	200,000	1,000,000	2,000,000	500,000
Retail (square feet)	N/A	0	100,000	50,000	200,000
Industrial (square feet)	N/A	86,000	-167,000	0	0
Institutional (square feet)	N/A	280,000	350,000	420,000	280,000
Residential (units)	1,800	0	2,000	0	400
Hotel (rooms)	200	0	200	300	400

Market Feasibility



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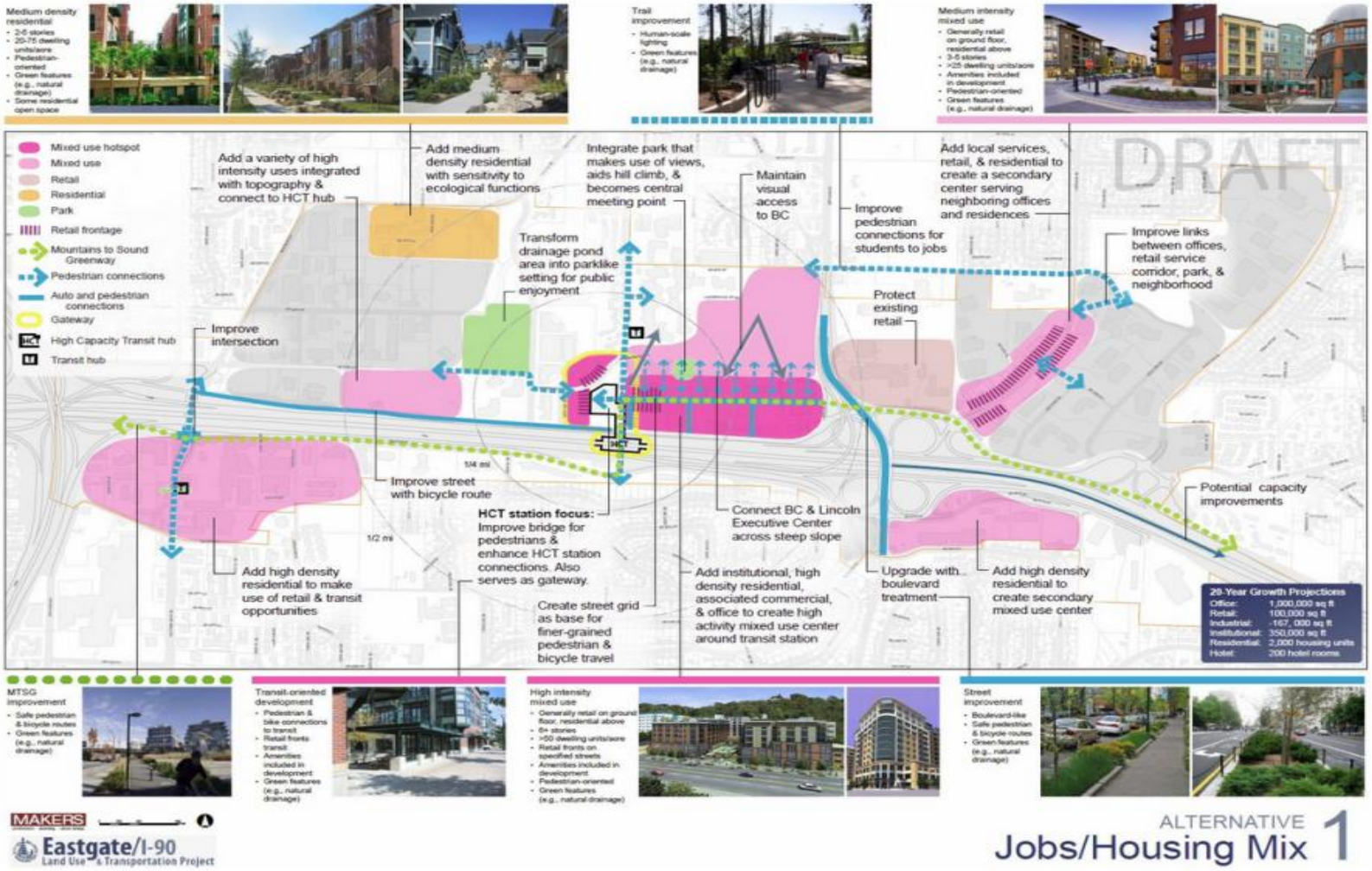
No Action



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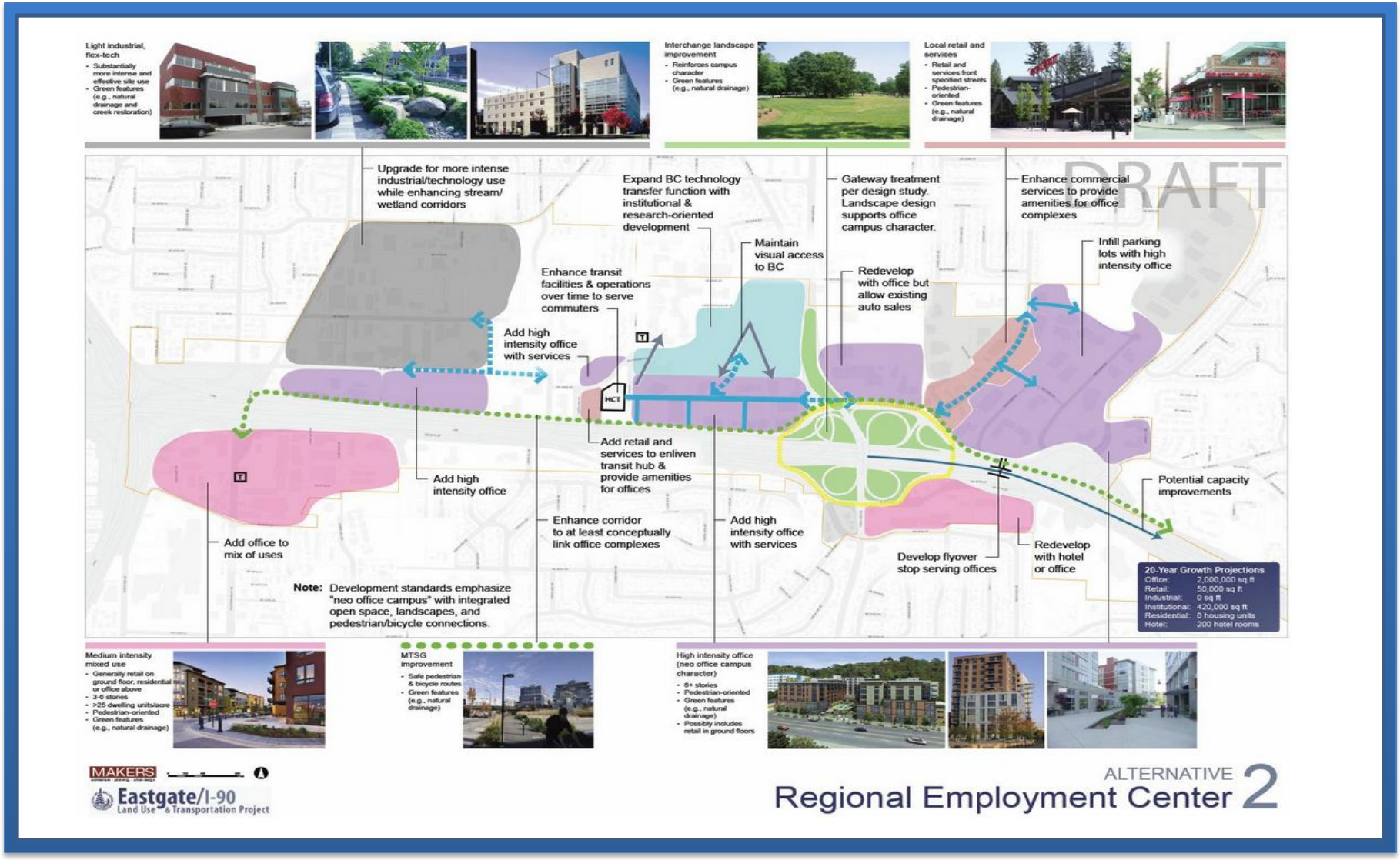
Alternative 1



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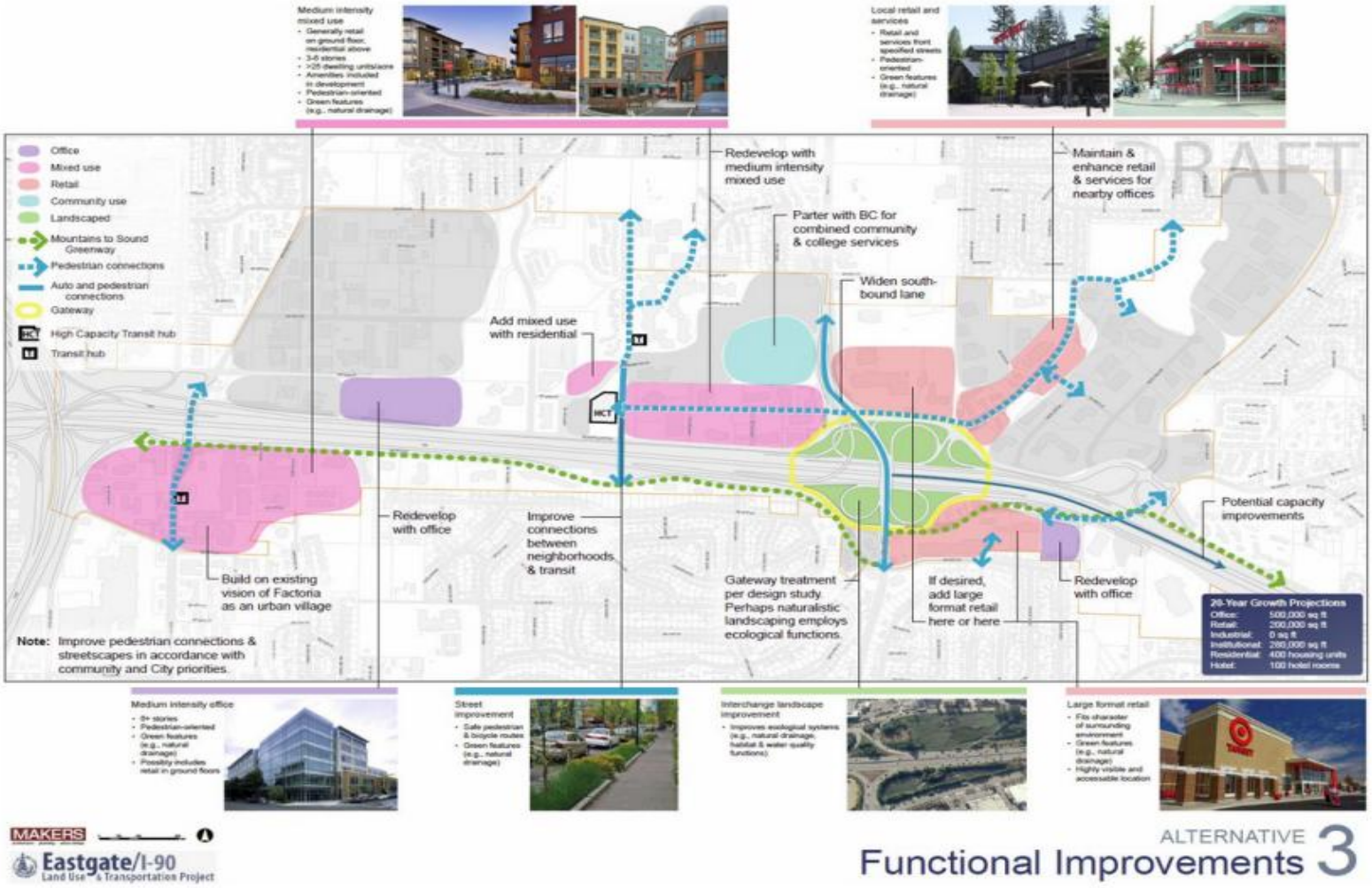
Alternative 2



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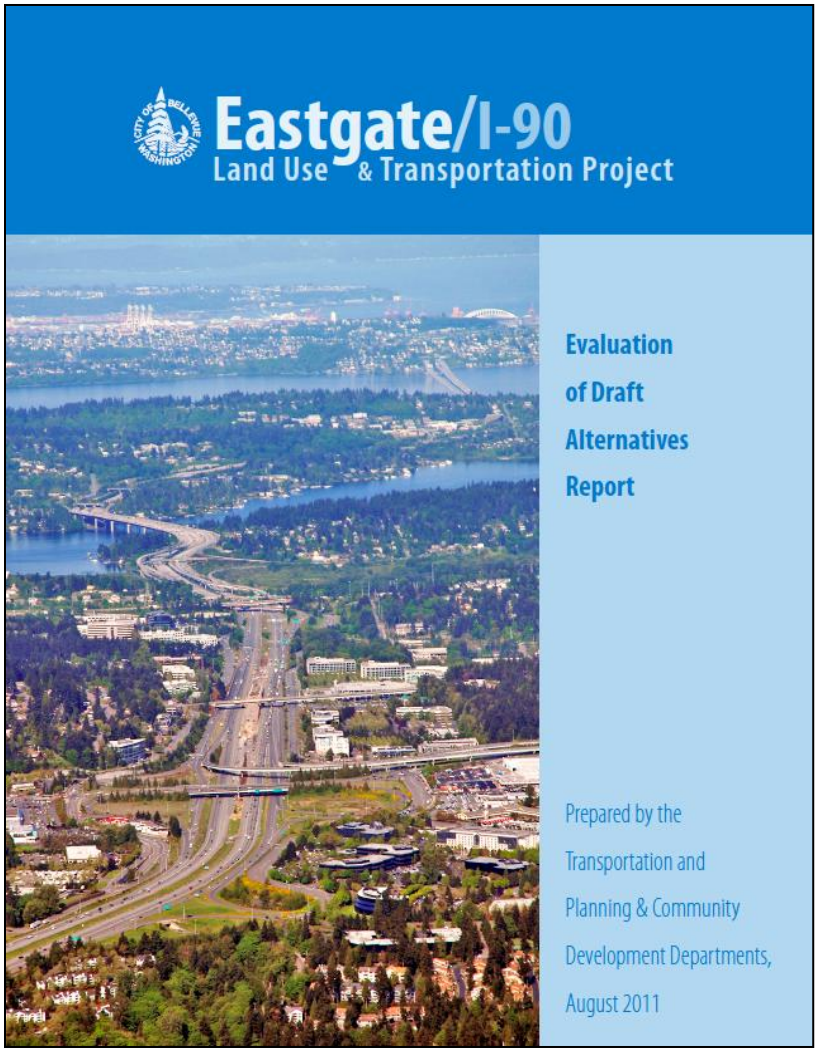
Alternative 3



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Compatibility with Adjacent Neighborhoods
Environmental Quality/Character
Corridor Character
Parks, Open Space, and Recreation
Integration of Land Use and Transportation
Fiscal Feasibility
Partnerships

Appendices

A: Draft Alternatives (May 19, 2011)
B: Redevelopment Analysis (Heartland) *(Note: This Appendix will be provided at a later date)*
C: Environmental Review Report (ESA)
D: Transportation Project List (City of Bellevue)
E: Traffic Assessment (Jim Ellison)
F: Transit Assessment (Nelson\Nygaard)
G: Greenway Trail Assessment (Toole Design Group)
H: Connectivity Analysis (Transpo Group)
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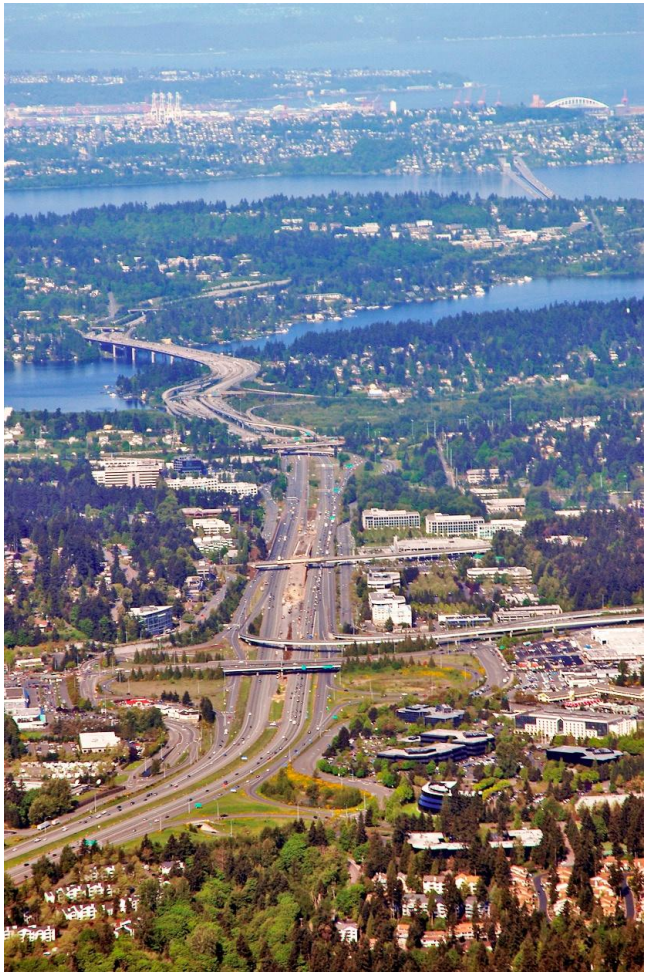
Evaluation Report



Assessment of Alternatives

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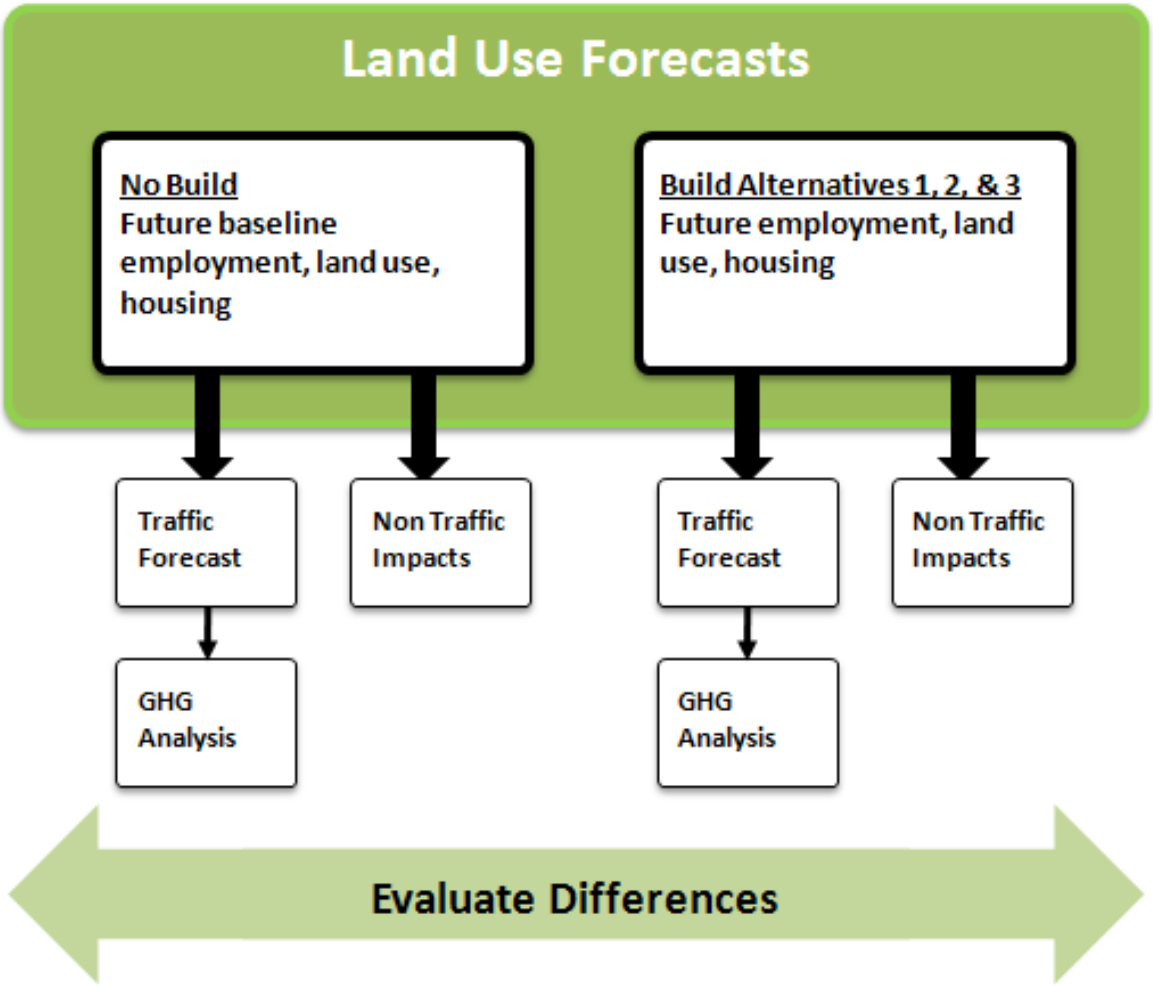
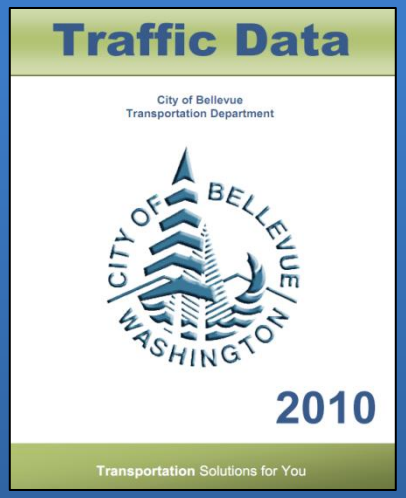


Eastgate/I-90 Land Use & Transportation Project

Land Use and Transportation Integration

There is little discernible difference in the projected 2030 traffic impacts among the No Action scenario and the three land use action alternatives; this is not surprising given the already developed nature of the corridor and limited opportunities for redevelopment potential in any of the alternatives.

Key Finding 1



Trip Generation
- Based on land use forecast (ie, 2030)

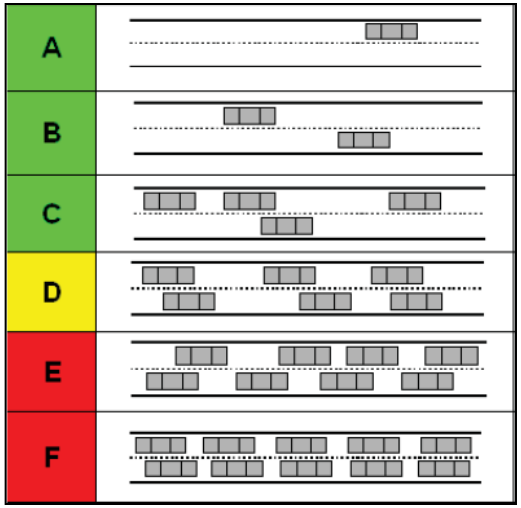
Land Use Forecast for Horizon Year

Trip Distribution
- Where trips go on the street network

Transportation Network Assumptions

Mode Choice
- SOV, HOV, Transit, Ped/Bike

Trip Assignment
- Trips assigned to specific streets



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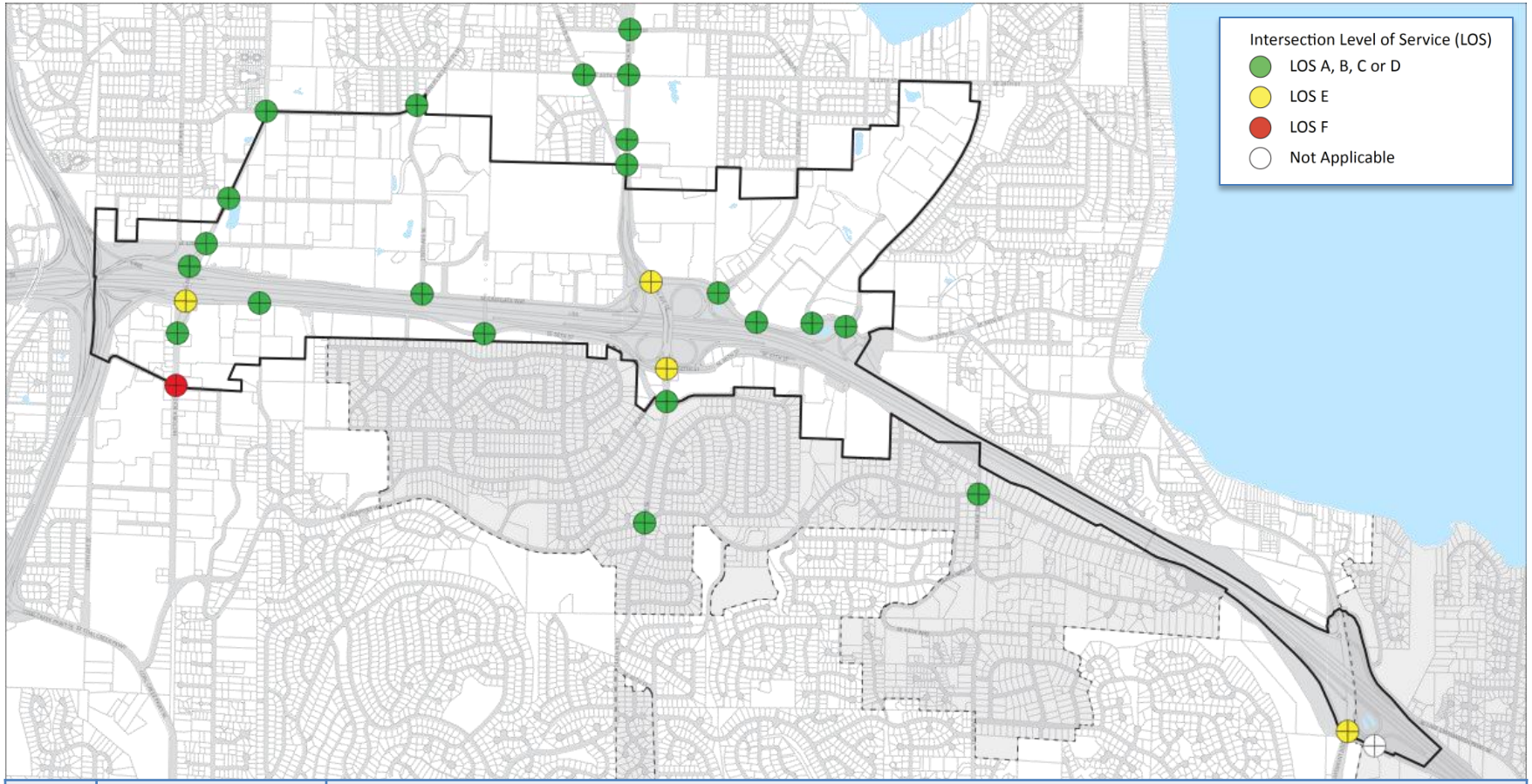
Travel Demand Modeling



LOS	Delay (Seconds)	Description
A	0 – 10	Most vehicles arrive during the green phase and so do not stop.
B	10 – 20	More vehicles stop than with LOS A, but many still do not need to stop.
C	20 – 35	The number of vehicles stopping is significant, though many still pass through the intersection without stopping.
D	35 – 55	The influence of congestion is noticeable, and most vehicles must stop.
E	55 – 80	Most, if not all vehicles must stop; drivers consider the delay excessive.
F	80+	Vehicles may wait through multiple cycles to pass through the intersection.

Level of Service (2030)

Existing traffic conditions and the anticipated increase in peak hour traffic volumes, regardless of which 2030 land use alternative is selected, indicate that future roadway, transit, and bicycle/pedestrian improvements will still be important to adequately serve transportation needs in the area.

Key Finding 2

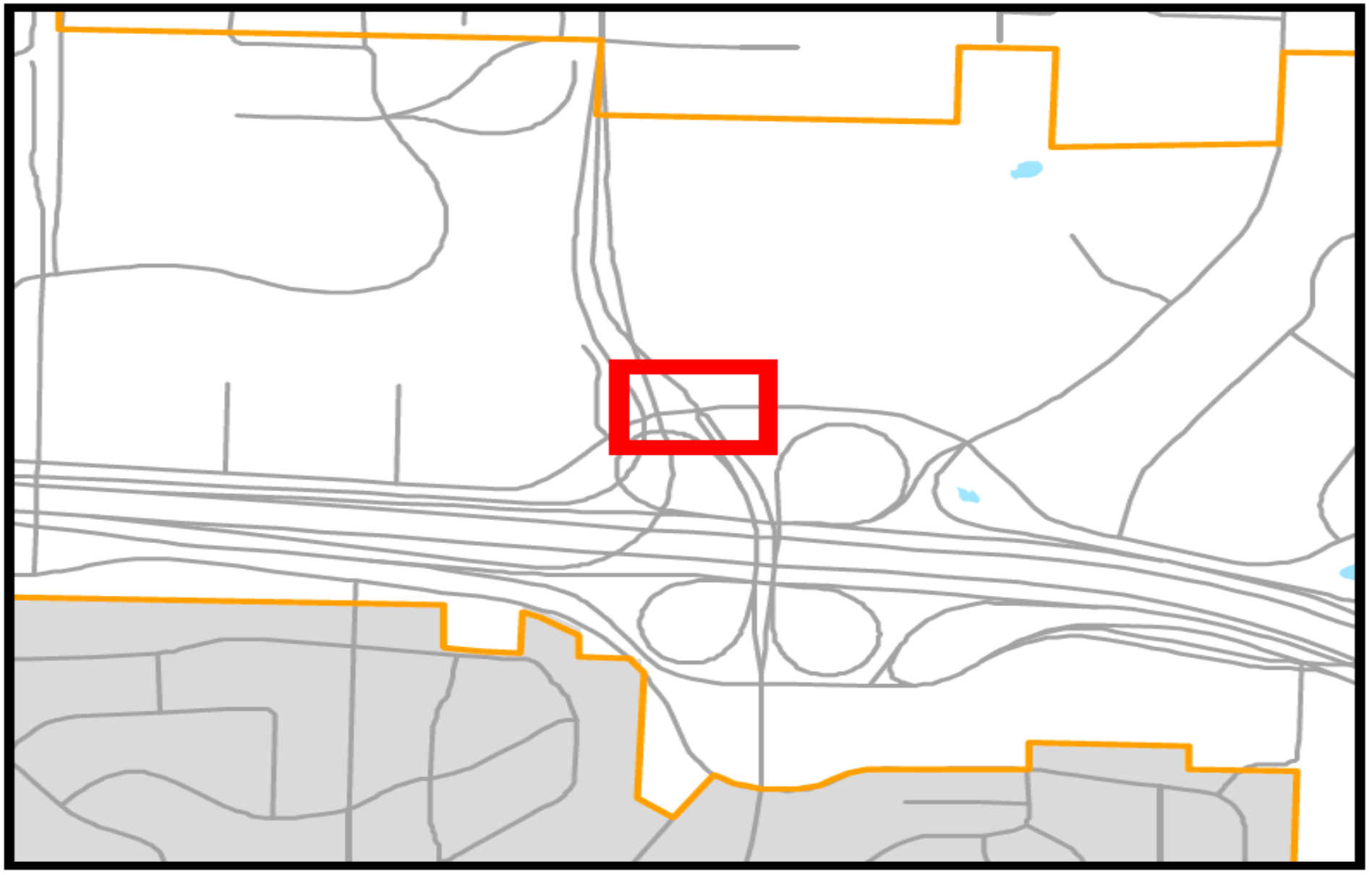
Estimated 2030 PM Peak Hour Volumes at Selected Intersections (vehicles per hour)

Intersection	No Action	Alt 1	Alt 2	Alt 3
SE Eastgate Way & 150th Ave SE	5,156	5,724	5,744	5,336
128th Ave SE (Factoria Blvd) & SE 36th St	5,437	5,345	5,444	5,383
150th Ave SE & I-90 EB Off-ramp & SE 37th St	4,216	4,376	4,356	4,307
150th Ave SE & SE 38th St	3,713	3,808	3,910	3,734
SE 37th St & I-90 Eastbound On-ramp	1,714	1,737	1,726	1,803

Source: BKR Model

The greatest differences in intersection entering volumes are at SE Eastgate Way & 150th Avenue SE, where there is an 11% increase in 2030 PM peak hour volumes from Alternative 2 to that of the No Action scenario.

Traffic Volumes (2030)



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150 Ave SE & Eastgate Way

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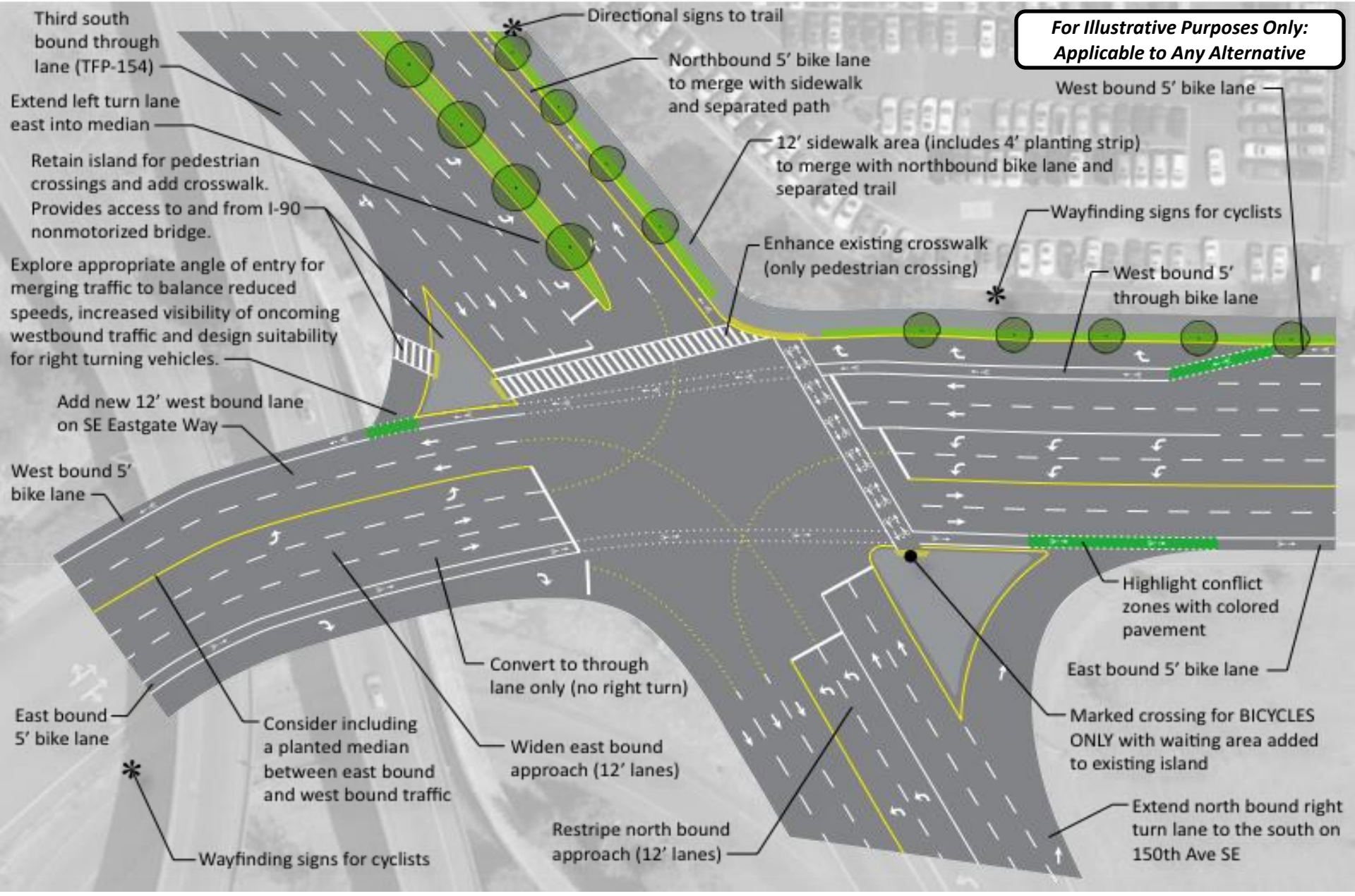
Land Use & Transportation Project

Existing Conditions



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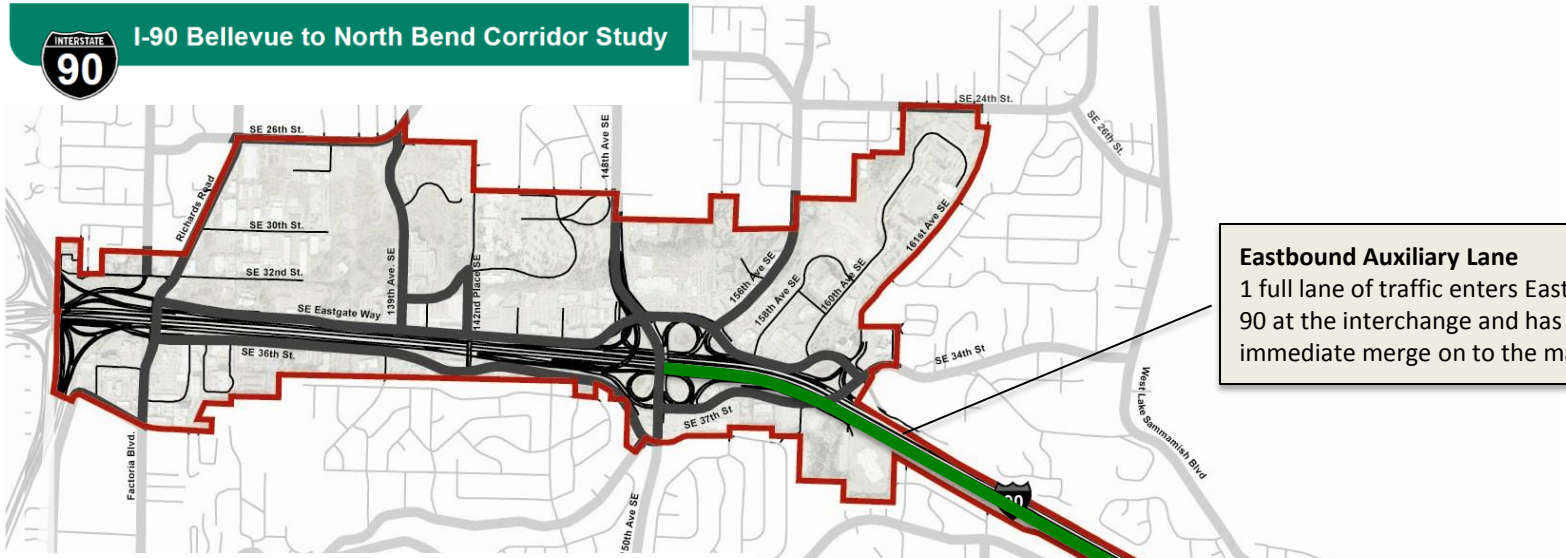
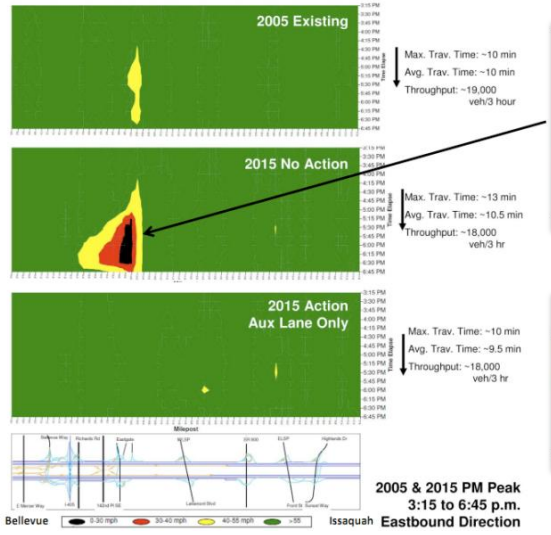
Enhancement Option

Construction of eastbound and westbound auxiliary lanes by WSDOT on I-90 between 150th Avenue SE and Lakemont Boulevard would have significant benefits for the I-90 mainline and would help minimize or eliminate the resulting queuing and congestion on City streets that lead to key on-ramps within the project study area.



Eastbound Auxiliary Lane
1 full lane of traffic enters Eastbound I-90 at the interchange and has an immediate merge on to the mainline.

I-90 Eastbound Speed Profile (2005 and 2015)



Eastgate Interchange
1 full lane of traffic enters I-90 in the p.m. peak hours and has to merge into the through lanes in a very short distance. This merge causes congestion back up to Richards Road.

By providing an eastbound Auxiliary Lane, vehicles will have more space to enter the mainline traffic resulting a smoother merge and less congestion at this point.

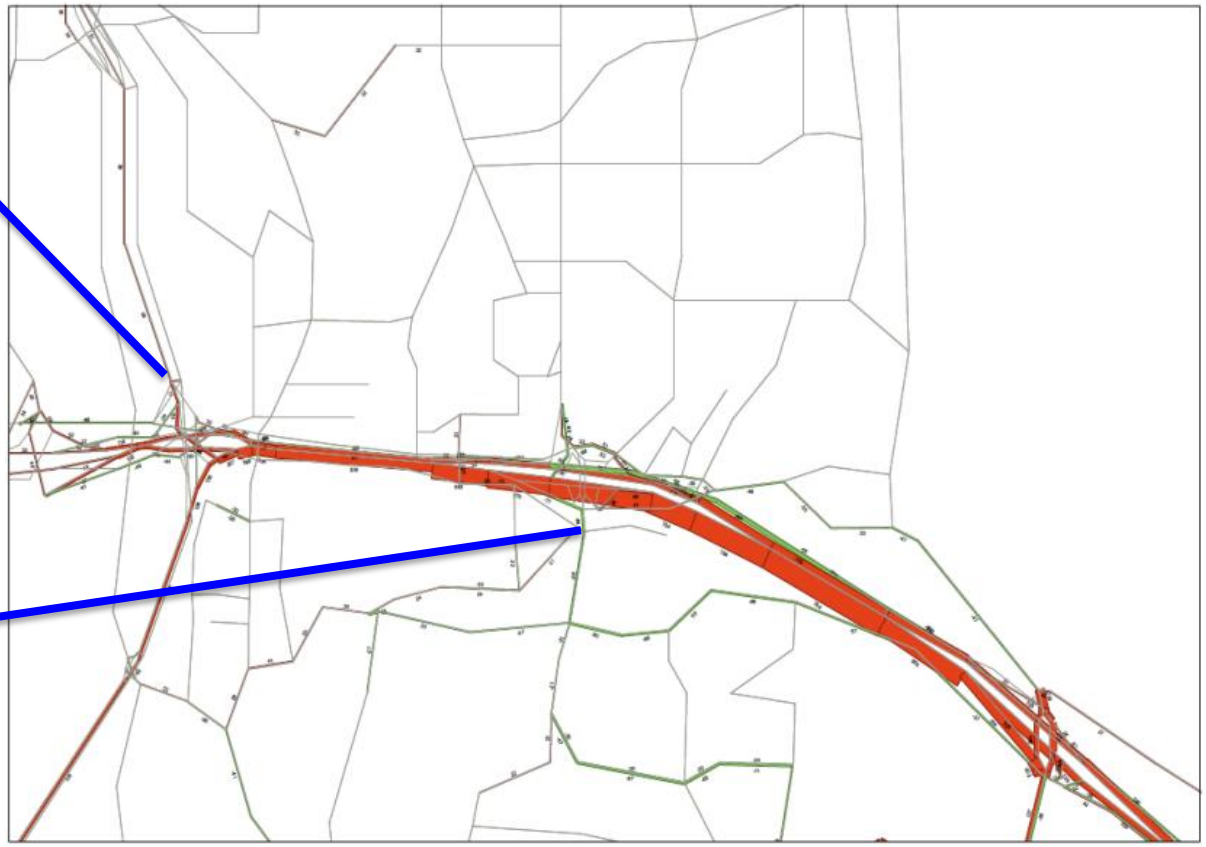
Eastgate/I-90 Land Use & Transportation Project

WSDOT I-90 Project

In Bellevue, the current Eastgate interchange operates at or near capacity during peak travel times; often resulting in spillover traffic that causes congestion on the surrounding arterial street network.

With WSDOT improvements, more 2030 trips are expected to access I-90 from the north and south via I-405, instead of using north-south arterials such as 150th Avenue SE.

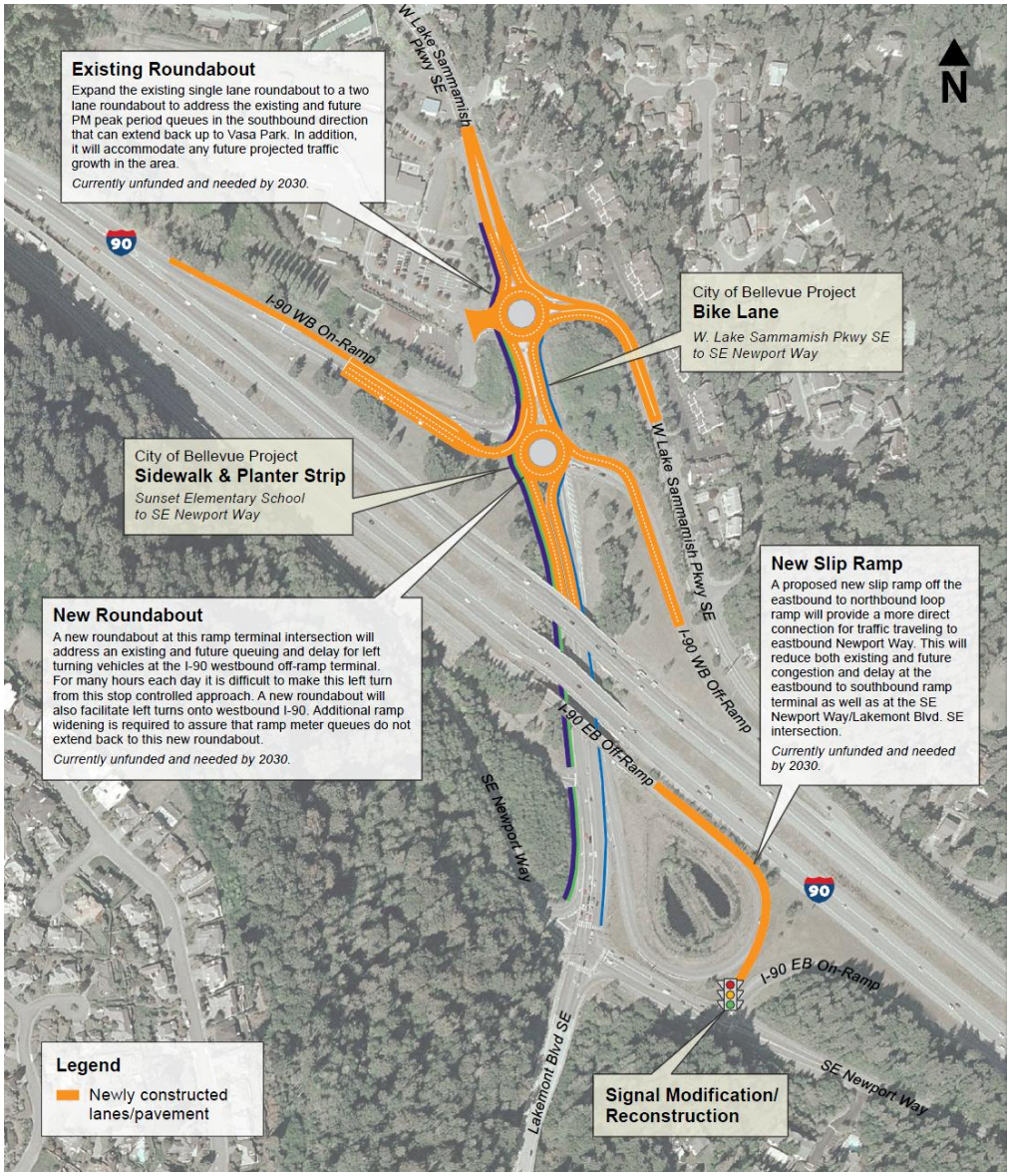
This situation helps minimize or eliminate the resulting queuing and congestion on City streets leading to on-ramps within the project study area, such as on SE 37th Street and on SE 38th Street.



Eastgate/I-90 Land Use & Transportation Project

Eastgate Interchange

Constructing a more effective interface between the State's I-90 ramps and overpasses and the City's interconnecting streets through the use of boulevard treatments and/or roundabouts could enhance traffic safety and provide community gateway and identity opportunities.



Simulated Capacity:

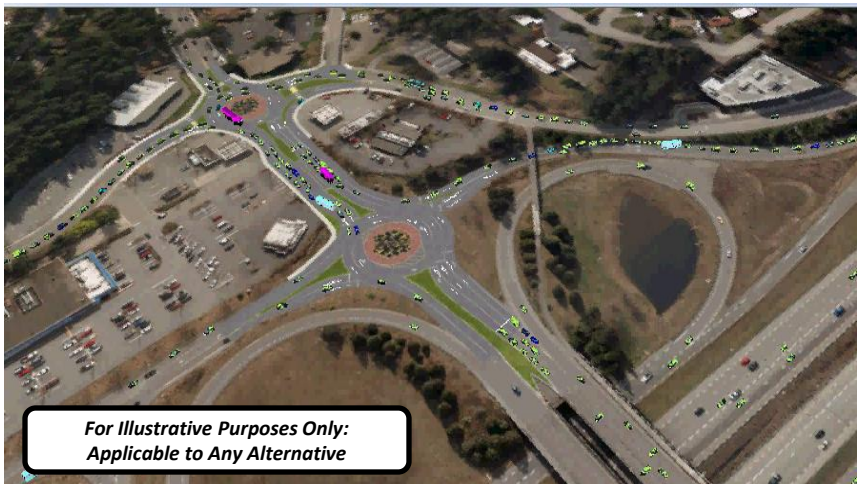
- **WSDOT I-90 Bellevue to North Bend Corridor Study found that roundabout enhancements improve LOS at both intersections from LOS F in the p.m. hour to LOS B or better in 2030.**
- **In the a.m. peak hour, the westbound ramps intersection operates at LOS F under its current configuration, while the existing single-lane roundabout to the north operates at LOS D.**
- **With roundabout improvements, both intersections will operate at LOS B in the a.m. peak hour.**

Update:

- **Addition of a new roundabout at the westbound ramp terminal received WSDOT funding for design and construction (2013 completion).**

Lakemont Interchange

150 Ave SE and SE Eastgate Way (Looking South)



150 Ave SE & I-90 EB Off-Ramp & SE 38 St Intersections (Looking South)

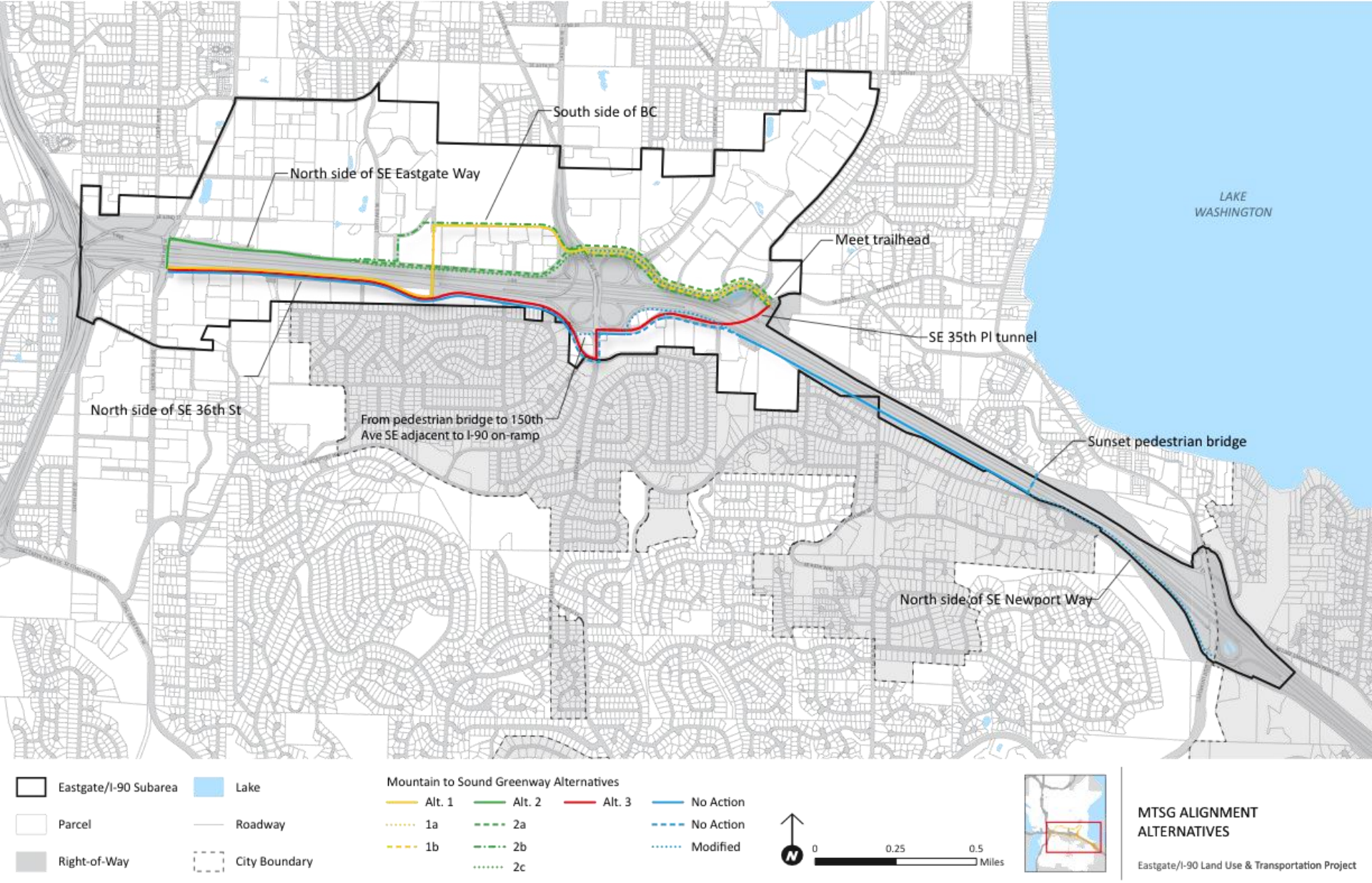
"Modeled existing and future operations of roundabout intersections for the Eastgate interchange show enhanced mobility and merit further consideration as a feasible approach to finding balance between motorized/non-motorized uses and the interface between community and regional transportation needs."

– WSDOT Traffic Design, Headquarters

Simulated Capacity

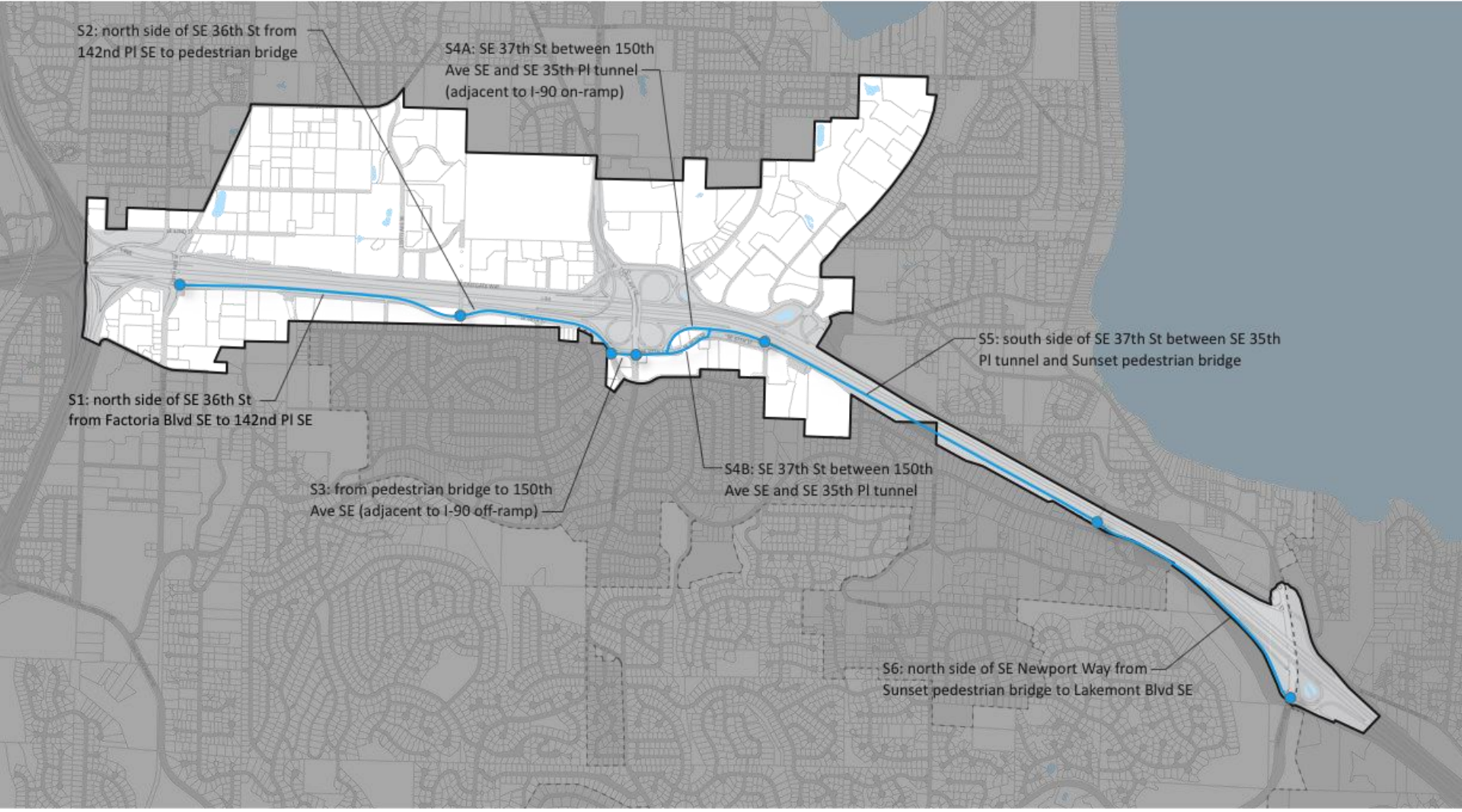
Feedback from outreach ride participants and the consultant team indicate that the preferred Greenway Trail alignment is south of I-90 (identified as "No Action – Modified") and that cyclists should also be accommodated on the frontage road on the north side of I-90.

Key Finding 5



Eastgate/I-90 Land Use & Transportation Project

MTSG Trail Alignments



S1: north side of SE 36th St from Factoria Blvd SE to 142nd Pl SE
S2: north side of SE 36th St from 142nd Pl SE to pedestrian bridge
S3: from pedestrian bridge to 150th Ave SE (adjacent to I-90 off-ramp)
S4A/B: SE 37th St between 150th Ave SE and SE 35th Pl tunnel
S5: adjacent to I-90 from SE 35th Pl tunnel to Sunset pedestrian bridge
S6: north side of SE Newport Way from Sunset pedestrian bridge to Lakemont Blvd SE

No Action (Modified) Alternative

Segment Break

N

0 0.25 0.5 Miles

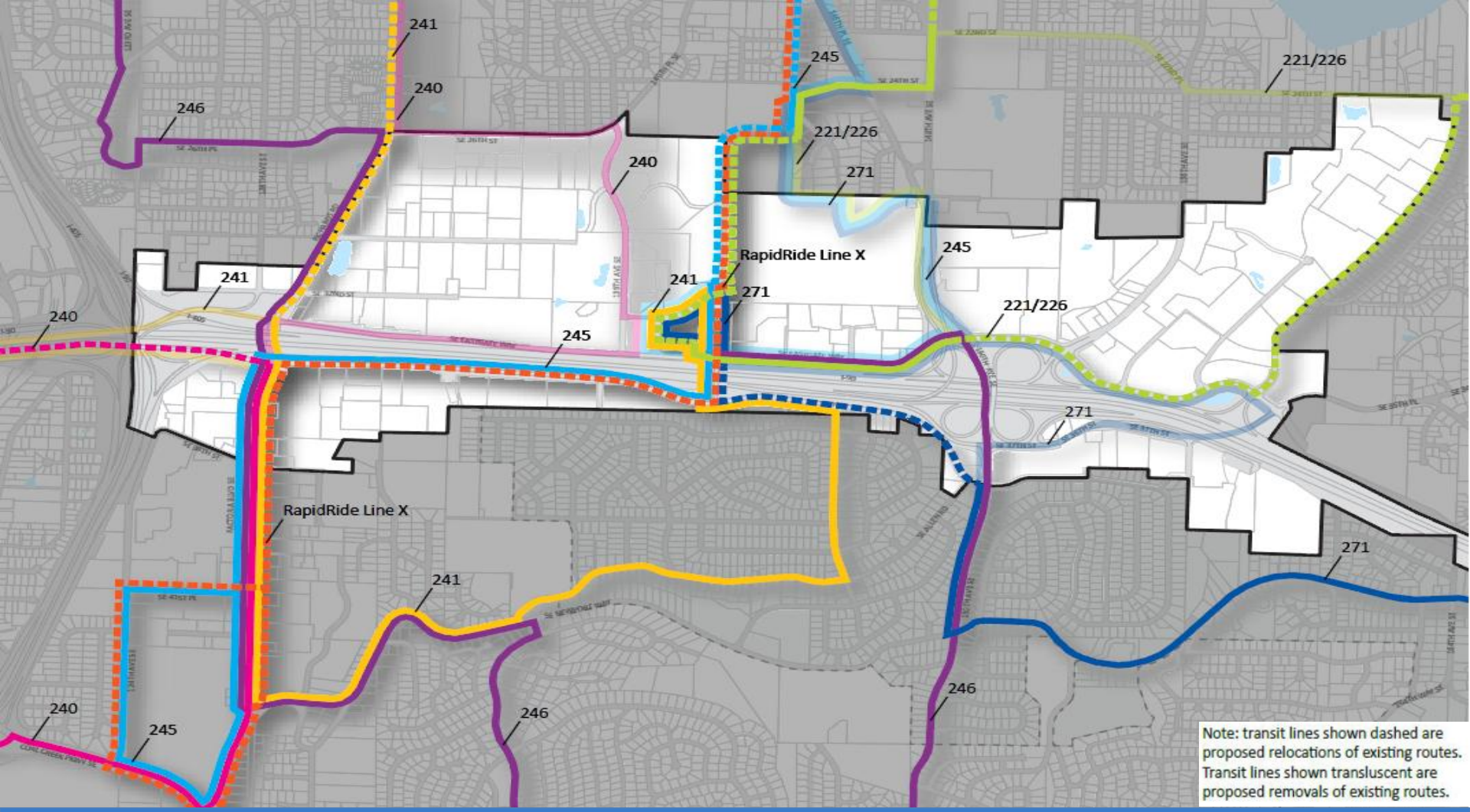
MTSG NO ACTION (MODIFIED) ALIGNMENT ALTERNATIVE SEGMENTS

Eastgate/I-90 Land Use & Transportation Project

Eastgate/I-90 Land Use & Transportation Project

Preferred Trail Alignment

Some of the improvement concepts depicted in the Action Alternatives are expected to significantly improve transit operations in the corridor (e.g., enhanced connections to Bellevue College in Alt 1 & 3).



Routing consistent with Bellevue College to Eastgate P&R Transit Improvement Concept in Alternatives 1 & 3. Specific themes found in the recommendation include increasing route directness to minimize in-bus travel time, serving all-day destinations with more frequent transit, and connecting the Eastgate area with more regional transit destinations.

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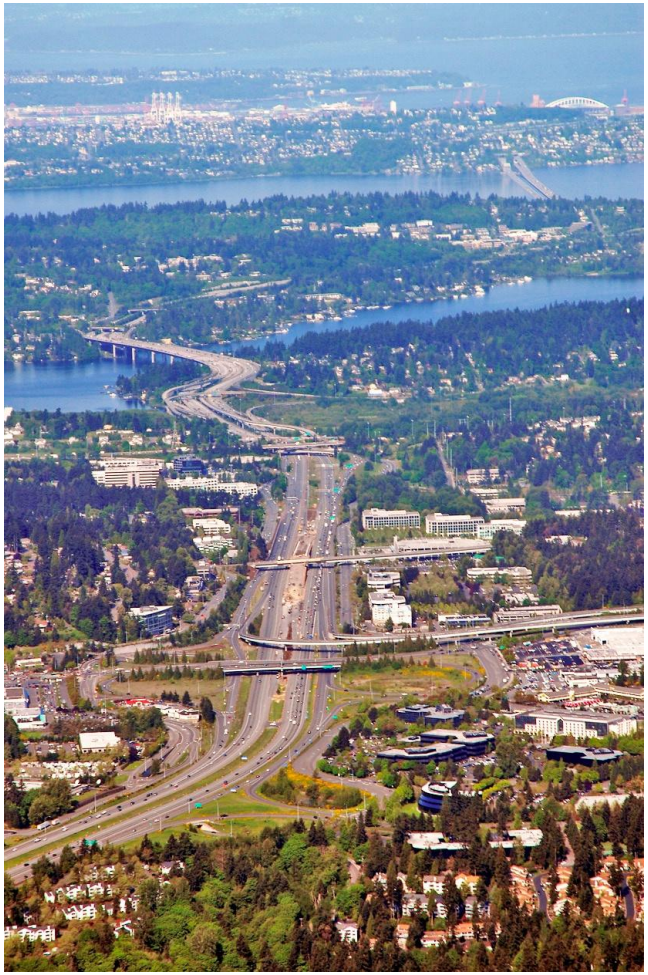
Transit Vision



Next Steps

Eastgate/I-90
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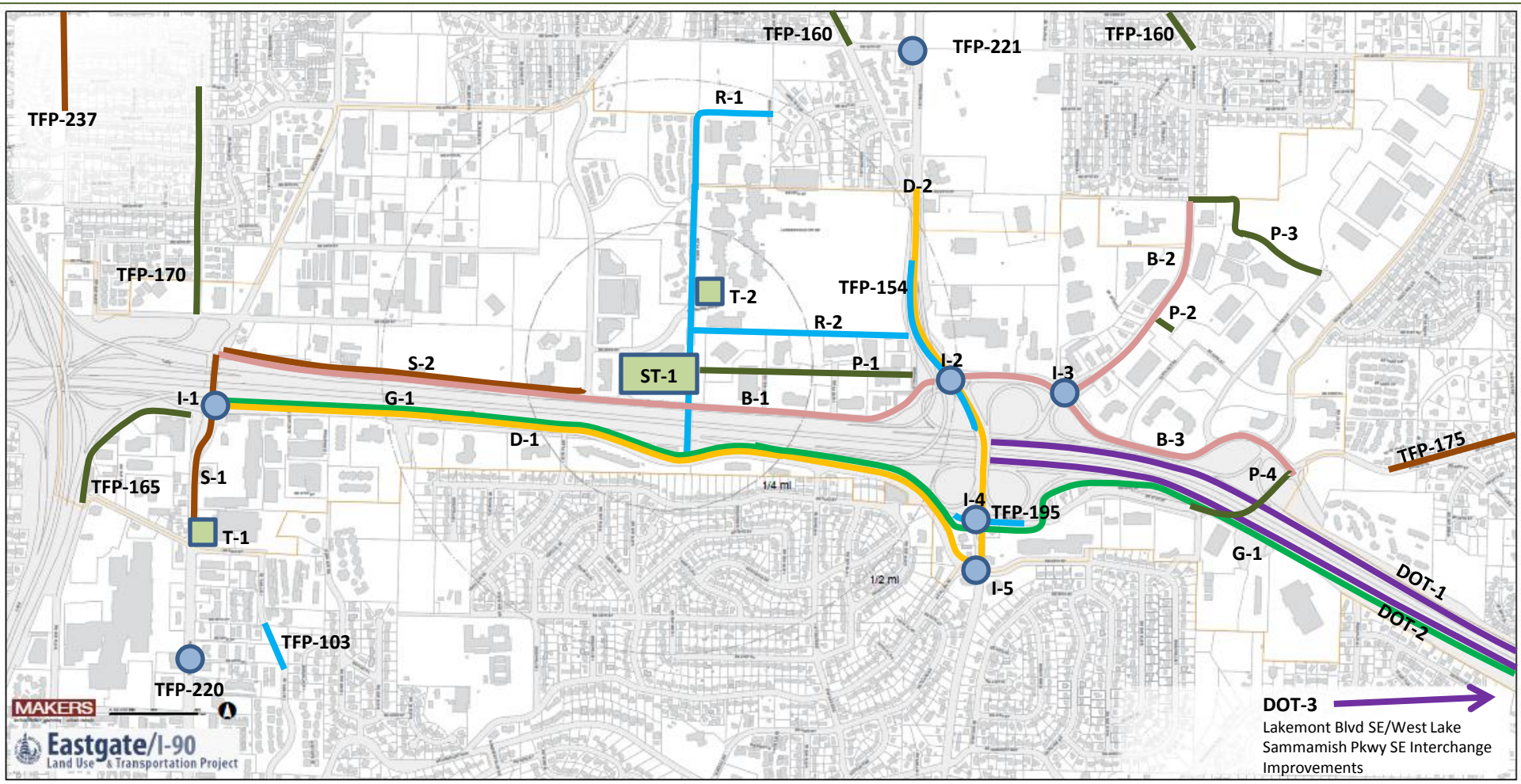

Eastgate/I-90
Land Use & Transportation Project

Suggested Transportation Improvements

Open House

Tuesday, October 18, 2011

Robinswood House Cabana

2430 148th Avenue SE

4:00 – 6:00 PM

Eastgate/I-90 Land Use & Transportation Project

Public Outreach

October 6 CAC Meeting

Eastgate/I-90 Land Use & Transportation Project

Nov/Dec/Jan CAC Meetings

www.bellevuewa.gov/eastgate-corridor.htm

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425-452-6866

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Additional Information